

**RAC II REGION 5 STATEMENT OF WORK FOR
REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS)
USS Lead Superfund Site, Lake County, Indiana
June 19, 2009**

CONTRACT NO: EP-S5-06-02

WORK ASSIGNMENT: 054-RICO-053J

INTRODUCTION

PURPOSE

The purpose of this work assignment is to conduct a remedial investigation/feasibility study (RI/FS) at USS Lead Superfund Site to select a remedy that eliminates, reduces, or controls risks to human health and the environment. Specifically, the RI/FS involves the investigation and study of lead contamination in residential properties. This statement of work (SOW) sets forth the framework and requirements for this effort. The goal is to develop the minimum amount of data necessary to support the selection of an approach for site remediation and then to use this data to result in a well-supported Record of Decision (ROD).

SITE DESCRIPTION

The former site of the U.S Smelter and Lead Refinery, Inc (USS Lead) operation is located on a 79 acre parcel of land in East Chicago, Indiana. The area is primarily industrial with nearby residential areas. The old plant location is bordered by the Indiana Harbor Belt Railroad, to the north, the East West Toll Road and the east branch of the Grand Calumet River to the south, Kennedy Avenue to the east, and Indiana Harbor Canal to the west. From 1906 to 1920, the company added a primary lead smelter to its operation. USS Lead converted to secondary smelting in 1973, recovering lead from scrap metal and old automobile batteries. All operations were discontinued in 1985. Two primary waste materials were generated as a result of the smelting operations: 1) blast furnace slag and 2) lead-containing dust emitted by the blast furnace stack. Blast furnace slag was stockpiled south of the plant building and once a year spread over an adjoining 21 acres of wetlands. The lead-containing dust was originally trapped in bag filters and stored in a three to five acre area for future recycling.

In 1975 and 1985, USS Lead received a National Pollutant Discharge Elimination System (NPDES) permit to discharge furnace cooling water and storm water runoff to the Grand Calumet River. According to Indiana Department of Environmental Management (IDEM), permit levels were exceeded for several materials. In the 1980s, several state and federal enforcement actions were taken against the company. In September 1985, the Indiana State Board of Health (ISBH) found USS Lead in violation of State law because lead particles were found downwind of the site. Approximately four million people draw drinking water from intakes primarily into Lake Michigan, which is 15 miles downstream of where hazardous substances from the site enter surface water. Seventy-five hundred people work or attend school within two miles of the site.

Since 1985, EPA RCRA Corrective Action has overseen the remediation and management of lead-contaminated soils within the boundaries of the U.S. Smelter and Lead Refinery, Inc. facility. The

remediation of the facility included the placement of the contamination in a Corrective Action Management Unit (CAMU). The remediation included the on-site wetlands. EPA sampled soil in the residential areas north of USS Lead as a part of the RCRA Corrective Action investigation. These sampling results showed that some yards in the East Chicago residential area had high levels of lead contamination. The area includes about 1500 homes, a few parks, schools, and public buildings. Many of these yards are close to the USS Lead Facility. In 2005, EPA RCRA Corrective Action referred USS Lead to Superfund for the cleanup of the residential portion of the site. In 2006, RCRA Corrective Action amended the referral to include the wetlands, as a part of the referred areas.

In 2003, EPA sampled soils in the residential area north of USS Lead as a part of the RCRA Corrective Action investigation. These sampling results showed some yards to have high levels of lead contamination. Most of the yards with the highest lead sampling results were in the southern region of the residential area. In April 2006, EPA Superfund re-sampled the yards at 14 properties. The analysis of those samples confirmed that the yards for at least twelve homes had lead contamination levels above 1200 ppm (the tier 1 level used in the evaluation of residential yards with lead contamination).

In 2008, Superfund Removal program removed 13 yards that were above tier 1 levels.

The enforcement team has not identified any potentially responsible parties with the ability to finance the proposed response actions. Under these circumstances, management must be willing to move forward with the understanding that this will be a fund-financed removal action with few prospects for recovering incurred costs.

U.S. EPA has focused its investigations on three persons that are potentially responsible for the contamination. These persons are: U.S. Smelter and Lead Refinery, Inc. (USS Lead), Atlantic Richfield Company, successor in interest to Anaconda Copper Company (ARCO), and E.I. duPont de Nemour Company (DuPont). U.S. EPA has concluded (1) USS Lead has no ability to pay for a cleanup; (2) DuPont has an ability to pay for a removal action but U.S. EPA may not be able to prove that DuPont disposed of hazardous substances at the site; and (3) ARCO has a limited ability to pay for a cleanup and U.S. EPA may not be able to prove that hazardous substances were released during the period of time in which ARCO's predecessor in interest owned the property.

GENERAL REQUIREMENTS

This is a term-form work assignment that requires the contractor to document how the RI/FS will be implemented in order to provide the information necessary for the Agency to develop a well-supported ROD that when implemented through a remedial action will eliminate, reduce or control risks to human health and the environment. The contractor shall furnish all necessary and appropriate personnel, materials, and services needed for, or incidental to, performing and completing the RI/FS in accordance with the requirements of this SOW.

This SOW is provided as a format for the contractor to structure its proposed approach and cost estimate. The contractor shall use the WBS in cost estimate preparation, and technical and cost tracking and reporting under this work assignment.

In conducting the work assignment, EPA expects the contractor to propose the most appropriate and cost-effective procedures and methodologies using accepted engineering practices and controls. Throughout

the performance of this work assignment, EPA expects the contractor to be responsible for performing services and providing products at the lowest reasonable cost. If there are changes to the SOW by the government, the government will issue a formal amendment to the SOW and negotiate the cost of the amendment with the contractor to form a new cost estimate.

A summary of the potential major deliverables and proposed schedule for submittals is in Attachment 1. This summary and schedule can be used as the basis for the contractor's proposed deliverables and schedules included in the work plan.

The contractor shall communicate at least weekly with the EPA contracting officer representative (COR), either in face-to-face meetings or through conference calls.

EPA provides oversight of contractor activities throughout the RI/FS. EPA review and approval of deliverables is a tool to assist this process and to satisfy, in part, EPA's responsibility to provide effective protection of public health, welfare, and the environment. EPA also reviews deliverables to assess the likelihood that the RI/FS achieves its goals and that its performance and operations requirements have been met. Acceptance of deliverables by EPA does not relieve the RI/FS contractor from responsibility for the adequacy of deliverables or its professional responsibilities.

RECORD KEEPING REQUIREMENTS

The contractor shall maintain all technical and financial records for the RI/FS in accordance with the contract. The Agency and the contractor shall endeavor to submit documents and deliverables using electronic media whenever possible. At the completion of the work assignment, the contractor shall submit an official record of the RI/FS in both compact disk and a hardcopy to the COR.

US EPA PRIMARY CONTACT

The primary contact for this work assignment is Michael Berkoff. He can be reached at (312)353-8983, via facsimile at (312)353-8426, or via e-mail at berkoff.michael@epa.gov. His mailing address is US EPA Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604. The secondary contact is Ed Quigley. He can be reached at (312) 886-7726, via facsimile at (312) 886-0186, via e-mail at quigley.edward@epa.gov and via mail at U.S. EPA Region 5, 77 W. Jackson Blvd (SA-7J), Chicago, IL 60604.

WORK ASSIGNMENT COMPLETION DATE AND PROJECT CLOSEOUT

At the completion of the work assignment, the contractor shall perform all necessary project closeout activities as specified in the contract. These activities include closing out any subcontracts, indexing and consolidating project records and files as required above, and providing a technical and financial closeout report to EPA. The goal is to complete all technical activities and closeout activities for this work assignment by June 28, 2011.

Task 1 - Project Planning and Support

This work element involves planning for the execution and overall management of this work assignment. The technical and managerial activities required to implement the RI/FS and the associated costs shall be developed during the planning phase and detailed in the RI/FS Work Plan and cost estimate.

Task 1.1 Work Plan

The contractor shall prepare and submit a RI/FS Work Plan that includes a detailed description of implementation activities, performance monitoring, and overall management strategy, including optimization, for the RI/FS. Typical activities involved in preparing the work plan include, but are not limited to, the following:

- The contractor shall contact the COR within five calendar days after receipt of the work assignment to schedule the kickoff meeting to be held at via teleconference with the U.S. EPA Region 5 office in Chicago, IL.
 - If the RI/FS contractor is unfamiliar with the site, the contractor shall review background documents relevant to the RI/FS as provided by the COR for purposes of the work plan preparation. These documents will include RCRA Corrective Action documents for the U.S.S. Lead facility and neighboring facilities, USS Lead Site Assessment studies and U.S.S. Lead removal action related documents.
 - If the RI/FS contractor is unfamiliar with the site, the contractor shall conduct a site visit with the COR during the RI/FS planning phase to assist in developing an understanding of the site and any logistics.
 - The contractor shall prepare and submit a final RI/FS Work Plan within 30 calendar days after the kick-off meeting. The contractor shall prepare a work plan which includes a detailed description of the technical approach for the RI/FS. The work plan shall specify the necessary procedures, inspections, deliverables, a schedule with specific dates for completion of each required activity and deliverable required by the SOW and a list of key contractor personnel providing support on the work assignment.
 - The contractor shall prepare the estimated cost to complete the work assignment, including subcontractor costs, for each element of the SOW; provide a breakdown of the cost by task and subtask levels, in accordance with the contract work breakdown structure (WBS).
 - As directed, the contractor shall attend a work plan fact finding/negotiation meeting via teleconference with USEPA. The contractor shall prepare and submit a revised work plan incorporating the agreements made in the fact finding/negotiation meeting.
- The contractor shall provide a conflict of interest disclosure.

Task 1.2 Site-Specific Plans

The contractor shall review all existing site-specific plans and prepare, update, and/or maintain plans, as necessary, for RI/FS implementation. Typical plans include, but are not limited to, the following:

- Site Management Plan. The SMP provides EPA with a written understanding of how access, security, contingency procedures, management responsibilities, and waste disposal are to be handled.
- Sampling and Analysis Plan (SAP) which is comprised of the following two parts:
 - Field Sampling Plan (FSP) in accordance with 40 CFR 300.415(b)(4)(ii). The FSP describes the number type, and locations of samples and the types of analyses.
 - Quality Assurance Project Plan (QAPP) in accordance with Intergovernmental Data Quality Task Force Uniform Federal Policy (UFP) for Quality Assurance Project Plans, EPA-505-B-04-900A, March 2005. The UFP-QAPP meets all the requirements of EPA Requirements for Quality Assurance Project Plans (QA/R-5) EPA/24/B-01/003, March 2001 (reissued May 2006). The QAPP describes policy, organization, and functional activities and the data quality objectives and measures necessary to achieve adequate data for use in planning and documenting the sampling investigation.
- Data Management Plan (DMP) The DMP outlines the procedures for storing, handling, accessing, and securing the data collected during the sampling event.
- Site-specific Health and Safety Plan (HSP) that specifies employee training, protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan in accordance with 29 CFR 1910.120(l)(1) and (l)(2). NOTE: The PRP's HSP may be adopted for use by the contractor if appropriate.

Task 1.3 Pollution Liability Insurance – N/A**Task 1.4 Project Management and Reporting**

The contractor shall perform activities required to effectively manage the work assignment.

- The contractor shall provide general work assignment management and coordination to implement the work assignment SOW. The contractor shall prepare monthly progress reports in accordance with the requirements under the contract. The contractor shall manage and track costs and prepare and submit invoices. The contractor shall report costs and level of effort (by P-level) for the reporting period as well as cumulative amounts expended to date.
- The contractor shall participate in progress meetings during the course of the work assignment. For budgeting purposes, the contractor shall assume 4 meetings, with 2 people in attendance, for 2 hours as required.
- The contractor shall accommodate any external audit or review mechanism as directed by EPA.
- The contractor shall attend EPA-held training as required.

Task 1.5 - Subcontractor Procurement and Support Activities

- The contractor shall identify, procure and administer the necessary subcontracts; i.e. drillers, Geoprobe, analytical services, surveyors.
- The contractor shall review, approve, and monitor the subcontractor's QA/QC program and conduct audits, as required and shall perform the necessary management and oversight of any subcontractor(s) needed to implement this SOW according to contract requirements. The contractor shall review and approve subcontractors' invoices and issue any necessary contract modifications.

Task 2 - Community Involvement

This task includes technical support provided by the contractor during public/availability meeting(s) under the associated community involvement work assignment. The contractor shall provide community involvement support to USEPA throughout the RI/FS in accordance with the *National Oil and Hazardous Substances Pollution Contingency Plan* (NCP, 40 CFR Part 300) and the *Community Relations in Superfund - A Handbook*, (U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9230.0-3C, January 1992. For budgeting purposes the contractor shall assume that the contractor will provide technical support at four public/availability meeting(s) with one contractor personnel on attendance.

Task 3 - Field Investigation/Data Acquisition

Data acquisition entails collecting environmental samples and information required to support the RI/FS. The planning for this task is accomplished in Task 1 - Project Planning and Support, which results in the plans required to collect the field data. Data acquisition starts with EPA's approval of the FSP and QAPP developed in Task 1 and ends with the demobilization of field personnel and equipment from the site. This task also includes contractor assistance in obtaining access to properties requiring sampling. The contractor shall assume that access may be needed at 400 properties. The contractor shall perform the following field activities or combination of activities for data acquisition in accordance with the EPA-approved FSP:

- Mobilization. The contractor shall mobilize and set up a field laboratory to facilitate rapid turnaround times for analytical results and identification of sample locations for subsequent sampling rounds.
 - Site Preparation
 - Installation of Utilities
 - Construction of Temporary Facilities
- Field Screening Identification of Field Support Equipment, Supplies, and Facilities
- Site Set up. Activities may include: installation of utilities, construction of a staging area, set up a field laboratory, clearing of the site to facilitate the transportation of equipment and vehicles.
- Field Investigation. The contractor shall conduct environmental sampling which includes the following:

- Perform Site Reconnaissance. The contractor shall conduct site surveys including property, boundary, well inventory, utility rights-of-way, and topographic information.
- Conduct Geological Investigations (Soils and Sediments). The contractor shall conduct geological investigations of surface and subsurface soils and sediments and test pits. The great majority of the soil sampling will occur in the residential area north of the former facility. The area includes 900 to 1200 homes. U.S. EPA expects that 300 to 600 of these homes will need to be studied for the purposes of the RI/FS. There will also be some geophysical study of the wetlands adjacent to the former facility. U.S. EPA expects this work to take 12 weeks including mob and demob.
- Conduct Air Investigations. N/A
- Conduct Hydrogeological Investigations (Ground Water and Surface Water). N/A
- Conduct Waste Investigation. N/A
- Conduct Geophysical Investigation. N/A
- Radiological Investigation: N/A
- Conduct Ecological Investigation. The contractor shall conduct ecological investigations.
 - ☐ Wetland and habitat delineation/function and value assessment
 - ☐ Wildlife observations
 - ☐ Benthic reconnaissance/community characterization
 - ☐ Identification of endangered species and others of special concern
 - ☐ Bioassays
 - ☐ Biota sampling/population studies
- Collect Contaminated Building Samples. N/A
- Dispose of Investigation-Derived Waste. Characterize and dispose of investigation-derived wastes in accordance with local, State, and Federal regulations as specified in the FSP (see the Fact Sheet, *Guide to Management of Investigation-Derived Wastes*, 9345.3-03FS (January 1992)).
- Demobilization.
 - Activities may include: removal of equipment and restoration of site property..
 - Removal of Temporary Facilities
 - Site Restoration

Task 4 - Sample Analysis – U.S. EPA expects the contractor to use the U.S. EPA CLP lab.

Task 5 - Analytical Support and Data Validation

This task provides for analytical support and data validation when required of the samples collected under task 3. The contractor shall perform the following activities or combination of activities:

- X Collect, prepare, and ship the environmental samples in accordance with the FSP and QAPP.
- X Coordinate with the EPA Sample Management Office (SMO), the Regional Sample Control Coordinator (RSCC), regarding analytical support, data validation, and quality assurance issues.
- X Implement the EPA-approved laboratory quality assurance program that provides oversight of in-house and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions.
- X Develop data quality objectives (DQO) for each sampling event; these DQOs shall be the determinative factor for assessing the success or failure of the sampling.
- X Provide sample management including chain of custody procedures, information management, sample retention, and 10-year data storage.
- X Perform data validation, when necessary. This will probably not be required as the samples are assumed to be going through the CLP. Data validation is the process by which the quality of the data, the defensibility of the data, and the chain of custody are verified.
- X Review the data analysis results against the validation criteria or intended purpose.
- X Develop a Data Validation Report to the Work Assignment Manager after all the data has been validated. This will probably not be required as the samples are assumed to be going through the CLP.

Task 6 - Data Evaluation

The contractor shall compile the sampling data and determine usability of all data collected. The contractor shall prepare and submit a report summarizing split sample results which includes a discussion of analytical results, a comparison of PRP sampling data with the split samples analyzed by EPA, and a discussion of any discrepancies. The contractor shall perform any modeling necessary to evaluate the data.

Task 7 - Risk Assessment

The Risk Assessment will determine whether site contaminants pose a current of potential risk to human health and the environment in the absence of any remedial action. The contractor shall address the contaminant identification, exposure assessment, toxicity assessment, and risk characterization. The Risk Assessment will be used to determine whether remediation is necessary at the site, provide justification for performing remedial action, and determine what exposure pathways need to be remediated.

- X The contractor shall perform a Screening-Level Human Health Risk Assessment (SLHHRA) and Ecological Risk Assessment (SLERA) in accordance with current Superfund ecological risk assessment guidance (Ecological Risk Assessment Guidance for Superfund, Process for Designing and Conducting Ecological Risk Assessments [EPA/540-R-97-006], and The Role of Screening-

Level Risk Assessments and Refining Contaminants of Concern in Baseline Ecological Risk Assessments, ECO Update, [EPA 540/F-01/014]).

X If EPA determines a full blown HHRA and/or ERA are necessary, the contractor shall prepare a draft and final HHRA Report and ERA Report that addresses the following:

- ☐ Hazard Identification (sources). The contractor shall review available information on the hazardous substances present at the site and identify the major contaminants of concern.
- ☐ Dose-Response Assessment. Contaminants of concern should be selected based on their intrinsic toxicological properties.
- ☐ Prepare Conceptual Exposure/Pathway Analysis. Critical exposure pathways (e.g., drinking water) shall be identified and analyzed. The proximity of contaminants to exposure pathways and their potential to migrate into critical exposure pathways shall be assessed.
- ☐ Characterization of Site and Potential Receptors. The contractor shall identify and characterize human populations in the exposure pathways.
- ☐ Exposure Assessment. The exposure assessment will identify the magnitude of actual or potential human exposures, the frequency and duration of these exposures, and the routes by which receptors are exposed. The exposure assessment shall include an evaluation of the likelihood of such exposures occurring and shall provide the basis for the development of acceptable exposure levels. In developing the exposure assessment, the contractor shall develop reasonable maximum estimates of exposure for both current land use conditions and potential land use conditions at the site.
- ☐ Risk Characterization. During risk characterization, chemical-specific toxicity information, combined with quantitative and qualitative information from the exposure assessment, shall be compared to measured levels of contaminant exposure levels and the levels predicted through environmental fate and transport modeling. These comparisons shall determine whether concentrations of contaminants at or near the site are affecting or could potentially affect human health.
- ☐ Identification of Limitations/Uncertainties. The contractor shall identify critical assumptions (e.g., background concentrations and conditions) and uncertainties in the report.
- ☐ Site Conceptual Model. Based on contaminant identification, exposure assessment, toxicity assessment, and risk characterization, the contractor shall develop a conceptual model of the site.

Task 8 - Treatability Study/Pilot Testing N/A

Task 9 - Remedial Investigation Report

The Contractor shall develop and deliver a Remedial Investigation (RI) report that accurately establishes the site characteristics such as media contaminated, extent of contamination, and the physical boundaries of the contamination. The RI shall provide information to assess risks to human health and the environment and to support the development, evaluation, and selection of appropriate response alternatives. The task includes all draft and final reports. The RI report shall be written in accordance with *Guidance for Conducting Remedial Investigations/Feasibility Studies under CERCLA*, OSWER Directive 9355.3-01, October 1988, Interim Final (or latest revision) and *Guidance for Data Usability in Risk Assessment*, (EPA/540/G-90/008), October 1990 (or latest revision). In accordance with the

schedule developed in the RI/FS Work Plan, the contractor shall submit a RI Report which includes the following.

- X Site Background.
- X Investigation.
 - < Field Investigation and technical approach
 - < Chemical analyses and analytical methods
 - < Field methodologies (biological, surface water, sediment, soil boring, soil sampling, monitoring well installation, groundwater sampling, hydrogeological assessment)
- X Site Characteristics.
 - < Geology
 - < Hydrogeology
 - < Meteorology
 - < Demographics and land use
 - < Reuse assessment
 - < Ecological assessment
- X Nature and Extent of Contamination.
 - ☐ Contaminant sources
 - < Contaminant distribution and trends
- X Fate and Transport.
 - ☐ Contaminant characteristics
 - < Transport processes
 - < Contaminant migration trends
- X Summary and Conclusions.

Task 10 - Remedial Alternatives Screening

The contractor shall develop an appropriate remedial alternatives to undergo full evaluation. The alternatives are to encompass a range including innovative treatment technologies consistent with the regulations outlined in the NCP, 40 CFR Part 300 and applicable Agency guidance, procedures and directives. The analysis will include institutional controls (ICs) to the extent appropriate. Typical activities include, but are not limited to, the following:

- Establish remedial action objectives
- Establish general response actions
- Identify and screen applicable remedial technologies
- Develop remedial alternatives in accordance with Section 300.430(e) of the NCP (1990)
- Screen remedial alternatives for effectiveness, implementability and cost
- Prepare Technical Memorandum.

Task 11 Remedial Alternatives Evaluation

The contractor shall assess individual alternatives against each of the nine evaluation criteria and a comparative analysis of all options against the evaluation criteria. The analysis shall be consistent with

the NCP, 40 CFR Part 300 and shall consider the *Guidance for Conducting Remedial Investigation and Feasibility Studies under CERCLA* (OSWER Directive 9355.3-01), *Guide to Developing and Documenting Cost Estimates During the Feasibility Study* (OSWER Directive 9355.0-75), and other pertinent OSWER guidance. The analysis shall include institutional controls (ICs) to the extent appropriate. EPA will make the determination regarding final selection of the remedial alternative. The nine criteria to be employed in evaluation of remedial alternatives are:

- Compliance with applicable or relevant and appropriate requirements (ARARs)
- Long-term effectiveness and permanence
- Reduction in toxicity, mobility or volume through treatment
- Short-term effectiveness
- Implementability - technical and administrative
- Cost
- State acceptance
- Community acceptance.

Task 12 Feasibility Study Report

The contractor shall prepare findings after the remedial alternatives have been screened and evaluated. The task includes preparation of all draft and final reports. The FS shall include the following:

- X Feasibility Study Objectives.
- X Remedial Objectives.
- X General Response Actions.
- X Identification and Screening of Remedial Technologies.
- X Remedial Alternatives Description.
- X Detailed Analysis of Remedial Alternatives (individual and comparative).
- X Summary and Conclusions.

Task 13 Post RI/FS Support

The contractor shall provide support required for preparation of the ROD for the site. The final recommendation contained in the ROD shall represent the opinion and recommendation of EPA not that of the contractor. For budgeting purposes, the contractor shall assume 120 hours. Typical activities include, but are not limited to, the following:

- X Attending public meetings, briefings, public hearings, technical meetings with PRPs.
- X Preparing presentation materials.
- X Providing technical assistance in the preparation of the Responsiveness Summary.
- X Providing technical assistance in the preparation of the Proposed Plan and ROD.
- X Preparing Feasibility Study Addendum.

Task 14 Administrative Record N/A

Task 15 - Work Assignment Closeout

The contractor shall perform the necessary activities to close out the work assignment in accordance with contract requirements. Typical activities include but are not limited to, the following:

- Package and return documents to the government.
- Duplicating/distribution/storage of files.
- X Preparation of the Work Assignment Closeout Report (WACR). The contractor shall prepare the WACR in accordance with Regional guidance or other procedures as specified in the work assignment. In those circumstances where the final hours/budget are greater than the +/- 20% of the approved work plan hours/budget, the contractor shall provide an explanation for the underage/overage.

**Attachment 1 - Summary of Major Submittals for the RI/FS
At USS Lead Superfund Site [Site]**

DELIVERABLE	NO. OF COPIES	DUE DATE (Calendar Days)
Task 1.1 RI/FS Work Plan	3	30 days after kick-off meeting
Task 1.1 Revised Work Plan	3	15 days after receipt of comments or negotiation meeting
Task 1.1 Conflict of Interest Disclosure	3	Within five days after acceptance of work assignment
Task 1.2 Site Management Plan	2	30 days after work plan approval
Task 1.2 Field Sampling Plan	2	30 days after work plan approval
Task 1.2 Quality Assurance Project Plan	2	30 days after work plan approval
Task 1.2 Data Management Plan	2	30 days after work plan approval
Task 1.2 Health & Safety Plan	2	30 days after work plan approval
Task 1.4 Monthly Progress Reports	3	As provided for in the Contract
Task 6 Data Evaluation Summary Report	2	45 days after receipt of validated data.
Task 7 Draft SLHHRA Letter Report	2	To be determined
Task 7 Draft SLERA Letter Report	2	To be determined
Task 7 Draft HHRA Report	2	To be determined
Task 7 Draft ERA Report	2	To be determined
Task 7 Final SLHHRA Letter Report	2	10 days after receipt of comments
Task 7 Final SLERA Letter Report	2	10 days after receipt of comments
Task 7 Final HHRA Report	2	21 days after receipt of comments

DELIVERABLE	NO. OF COPIES	DUE DATE (Calendar Days)
Task 7 Final ERA Report	2	21 days after receipt of comments
Task 9 Draft RI Report	2	30 days after completion of HHRA or ERA
Task 9 Final RI Report	2	21 days after receipt of comments
Task 10 Remedial Alt Screening	2	To be determined
Task 11 Remedial Alt Evaluation	2	To be determined
Task 12 Draft FS Report	2	To be determined
Task 12 Final FS Report	2	21 days after receipt of comments
Task 15 Work Assignment Completion Report (WACR)	3	45 days after receipt of the Work Assignment Closeout Notification (WACN)
Task 15 Final Costs documented in WACR	3	90 days after receipt of WACN

Attachment 2 - Regulations and Guidance Documents

The following list, although not comprehensive, consists of many of the regulations and guidance documents that apply to the RI/FS process:

1. American National Standards Practices for Respiratory Protection. American National Standards Institute Z88.2-1980, March 11, 1981.
2. ARCS Construction Contract Modification Procedures September 89, OERR Directive 9355.5-01/FS.
3. CERCLA Compliance with Other Laws Manual, Two Volumes, USEPA, Office of Emergency and Remedial Response, August 1988 (DRAFT), OSWER Directive No. 9234.1-01 and -02.
4. Community Relations in Superfund — A Handbook, USEPA, Office of Emergency and Remedial Response, January 1992, OSWER Directive No. 9230.0-3C.
5. A Compendium of Superfund Field Operations Methods, Two Volumes, USEPA, Office of Emergency and Remedial Response, EPA/540/P-87/001a, August 1987, OSWER Directive No. 9355.0-14.
6. Construction Quality Assurance for Hazardous Waste Land Disposal Facilities, USEPA, Office of Solid Waste and Emergency Response, October 1986, OSWER Directive No. 9472.003.
7. Contractor Requirements for the Control and Security of RCRA Confidential Business Information, March 1984.
8. Data Quality Objectives for Remedial Response Activities, USEPA, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, EPA/540/G-87/003, March 1987, OSWER Directive No. 9335.0-7B.
9. Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, USEPA Region IV, Environmental Services Division, April 1, 1986 (revised periodically).
10. EPA NEIC Policies and Procedures Manual, EPA-330/9-78-001-R, May 1978, revised November 1984.
11. Federal Acquisition Regulation, Washington, DC: U.S. Government Printing Office (revised periodically).
12. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final, USEPA, Office of Emergency and Remedial Response, October 1988, OSWER Directive NO. 9355.3-01.
13. Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potential Responsible Parties, USEPA Office of Emergency and Remedial Response, EPA/540/G-90/001, April 1990.
14. Guidance on Expediting Remedial Design and Remedial Actions, EPA/540/G-90/006, August 1990.
15. Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites, USEPA Office of Emergency and Remedial Response (DRAFT), OSWER Directive No. 9283.1-2.
16. Guide for Conducting Treatability Studies Under CERCLA, USEPA, Office of Emergency and Remedial Response, Prepublication version.
17. Guide to Management of Investigation-Derived Wastes, USEPA, Office of Solid Waste and Emergency Response, Publication 9345.3-03FS, January 1992.
18. Health and Safety Requirements of Employees Employed in Field Activities, USEPA, Office of Emergency and Remedial Response, July 12, 1982, EPA Order No. 1440.2.
19. Interim Guidance on Compliance with Applicable of Relevant and Appropriate Requirements, USEPA, Office of Emergency and Remedial Response, July 9, 1987, OSWER Directive No. 9234.0-05.
20. Methods for Evaluating the Attainment of Cleanup Standards: Vol. 1, Soils and Solid Media, February 1989, EPA 23/02-89-042; vol. 2, Ground water (Jul 1992).
21. National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, Federal Register 40 CFR Part 300, March 8, 1990.
22. NIOSH Manual of Analytical Methods, 2nd edition. Volumes I-VII for the 3rd edition, Volumes I and II, National Institute of Occupational Safety and Health.
23. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute of Occupational Safety and Health/Occupational Health and Safety Administration/United States Coast Guard/Environmental Protection Agency, October 1985.
24. OSWER Directive No. 9355.7-02, May 23, 1991. [Guidance, p. 3-5]
25. OSWER Directive No. 9242.3-08, December 10, 1991. [Guidance, p. 2-2]

26. Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, February 19, 1992, OSWER Directive 9355.7-03.
27. Procedure for Planning and Implementing Off-Site Response Actions, Federal Register, Volume 50, Number 214, November 1985, pages 45933-45937.
28. Procedures for Completion and Deletion of NPL Sites, USEPA, Office of Emergency and Remedial Response, April 1989, OSWER Directive No. 9320.2-3A.
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